PROJECT REPORT

ON

INNER FEELINGS

Submitted to:

Manav Rachna International Institute of Research & Studies,

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Declaration

I do hereby declare that this project work entitled "**Inner Feelings**" submitted by me for the partial fulfillment of the requirement for the award of MASTER OF COMPUTER APPLICATIONS (MCA) is a record of my own work. The report embodies the finding based on my study and observation and has not been submitted earlier for the award of any degree or diploma to any Institute or University.

Signature
Poonam
21/FCA/MCA/39

Certificate from the Guide

This is to certify that the project report entitled "**INNER FEELINGS"** submitted in partial fulfillment of the degree of **MASTER OF COMPUTER APPLICATIONS (MCA)** to Manav Rachna International Institute of Research & Studies, Faridabad is carried out by **POONAM (21/FCA/MCA/039)** under my guidance.

Signature of Guide
Dr.Neda Fatima
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Dr. Rashmi Agrawal

Acknowledgement

I gratefully acknowledge for the assistance, cooperation, guidance and clarification provided by Dr.Umesh Dutta during the development of Web Application “Inner Feelings”. Without his willing disposition, spirit accommodation, frankness, timely clarification and above all faith in us, this project could not have been completed in due time. My extreme gratitude to Dr.Neda Fatima who guided us throughout the project.I would also like to thank all the faculty members of the Computer Applications Department for their cooperation and support.

I would like to extent my sincere gratitude to **Dr. Rashmi Agrawal – HOD** for her valuable teaching and advice. I would again like to thank all faculty members of the department for their cooperation and support. I would like to thank non-teaching staff of the department for their cooperation and support.

I perceive this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to obtain desired career objectives. Hope to continue cooperation with all of you in the future.

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CHAPTER-1

INTRODUCTION

Introduction

Inner Feelings is an online web application developed where the people can get services of mental health care. Through a web browser the people can get various services to form a mental peace. The user can login using his account details and new individual can set up an account by registering very quickly. They can read various blogs regarding mental health care. They can write their mental health care recovery story. And also they can book an appointment. They can see freebies which can calm their mind too.

Functionalities: -

This project has the following functionalities:
1) **A Home page** - This is the page where the user will be navigated. It will display the menu and also show login page where user can login there.
2) **Login Page** - User can register yourself and make their own account.And after this, they can login to their own desired account.
3) **Tableau Dashboard -** Tableau dashboard gives the details of users that commit suicide due to mental health pressure. This also distinguish the suicides rate according to gender and countries.
4) **Blogs** - Blog section is divide into further sub-parts based on mental health problems like anxiety, mood swings, depression, stress. User can read these and also can get a way how to improve their mental peace.
5) **Freebies** - This is the page which shows flip cards that shows mental peace quotes on it.
6) **My Story** - The user can manage their account and can write its recovery story or problem on this page. This page helps the user to speak out of their problems which they are not discuss it with anyone.
7) **Managing user accounts** - Each user should have an account to access all the functionalities of website. User can login using login page and logout using the logout button.

8) **Administration** - The Administrator will be provided with special functionalities like • Add Users registration • Identify the valid user while login on page • Add my story

1.1 About Organization

1.1Aims and Objectives

The objective of this project is to develop an mental health care web application which named as “Inner Feelings” where users can get services from the comfort of home through the Internet.Through a web browser the people can get various services to form a mental peace. The user can login using his account details and new individual can set up an account by registering very quickly. They can read various blogs regarding mental health care. They can write their mental health care recovery story. And also they can book an appointment. They can see freebies which can calm their mind too.

This project will serve the following objectives:

- The main objective of the project is to provide a platform for mental health patients .
- To provide users easy to use and attractive user interface.
- Patients can easily book appointments with the doctor.
- Easy inventory management.
- To save travelling time and cost.
- User can easily access to the website without any difficulty.
- In this website users can share their story or how do they feel at the moment and get the correct consultancy according to their mood.

1.2 Manpower: -

There is 2 person working on the development of Inner Feelings .The people working on the project includes (along with their role in the team is)

Sr. No.	Name	Roll Number	Role
1.	Poonam	21/FCA/MCA/039	Project Report, Front-end development
2.	Arjun	21/FCA/MCA/012	Database Management, Testing

After the deployment of the software, it can run on the very minimal maintenance.

CHAPTER - 2

SYSTEM STUDY

System Study

2.1 Proposed System along with advantages

Digital mental health refers to services delivered online, mobile or via the phone. These services include programs, apps, online support communities, web chat and email, and telephone crisis and counselling lines.

Digital mental health services are a great option for people searching for mental health support for themselves or for others. They are accessible at any time, can be used anonymously, are easy to use, and most are low-cost or free. These services can be used alone or in combination with face-to-face therapy. They can also be used in a variety of settings including home, the workplace, schools or through clinician workplaces.

- Considering the anomalies in the existing system, computerization of the whole activity is being suggested after initial analysis.
- The web application is developed using with javascript and MySQL Server.
- Proposed system is accessed by two entities namely, Admin and User.
- Admin need to login with their valid login credentials first in order to access the web application.
- After successful login, admin can access all the modules and perform/manage each task accurately.
- User need to register with their basic registration details along with their valid login id and password details.
- Once a user is registered, he/she need to login using valid credentials and access the system. User can perform various tasks such as seeing blogs like anxiety, depression, stress. They can read activities which provide mental peace and do it their real life.
- User can write their own recovery story.
- This system saves time of users.

It is a good first step to find a range of digital mental health services and resources delivered by Inner feelings club. This is ease to access so anyone can use it whether a aged person, people and families with a lived experience of mental health issues, as well as mental health organizations, service providers, students,health professionals.

CHAPTER - 3

FEASIBILITY STUDY

Feasibility Study

Feasibility is a process that identifies, describes and evaluates proposed system and selects the best system for the job. During the study, the problem definition is solved and all aspects of problem to be included in the system are determined. Size of project, cost and benefits are also estimated with greater accuracy. The result of feasibility study is simply a report which is a formal document detailing the nature and scope of the proposed solution.

This study is carried out to test whether the proposed system is worth being implemented. It is a test of the system proposed regarding its work ability, its impact on the organization, ability to meet user needs and effective use of resources.

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

There are three main types of feasibility study: -

1. Technical
2. Economical
3. Behavioral

3.1 Technical Feasibility

Technical feasibility is concerned with the availability of hardware and software required for the development of the system.

It determines whether the technology needed for the proposed system is available and how it can be integrated within the organization. Technical evaluation must also assess whether the staff have technical expert to understand and use the new technology.

This includes the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this study, we studied complete functionality to be provided in the system.

It centers on the existing computer system (hardware, software, etc.) and to what extent it can support the proposed system addition. If the budget is serious constraint, then the project is judged not feasible.

After the study, we concluded that we proceed further with the tools and development environment chosen by us.

3.2 Economic Feasibility

The purpose of assessing economic feasibility is to identify the financial benefits and cost associated with the development of the system. Economic feasibility is often known as the

cost benefit analysis. To carry out an economic feasibility study it is necessary to estimate actual money value against activities needed for implementing the system.

It is the measure of cost effectiveness of the project. The economic feasibility is nothing but judging whether the possible benefit of solving the problems is worthwhile or not.

This is a very important aspect to be considered while developing a project. It is to determine the benefits and savings that are expected from the proposed system and compare it with the costs. If a benefit outweighs the costs, then the decision made to design and implement the system is economically feasible. We decided the technology based on minimum possible cost factor.

- All hardware and software cost must be borne by the organization.
- Overall, we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs and the later running costs for the system.

3.3 Behavioral Feasibility

It is the analysis of behavior of the proposed system. In this, we analyze that the candidate system is working properly or not. If working properly, then it is communicating properly with the environment or not. All these matters are analyzed, and a good candidate system is prepared. Due to the change of the system what is the change in the behavior of the users, this factor is also analyzed.

It includes how strong the reaction of the staff will be towards the development of the new system that involves use of the computer in their daily work.

People are inherently resistant to change, and computers have been known to facilitate change. An estimate should be made of how strong a reaction the user staff is likely to have toward the development of a computerized system.

It is understandable that the introduction of a candidate system requires special effort to educate, sell, and train the staff on new ways of conducting business.

CHAPTER - 4

PROJECT MONITORING SYSTEM

Project Monitoring System

Project monitoring is the inevitable dimension of project management that empowers project owners, planners, managers, engineers and other stake holders to visualize various variables of project delivery like progress, cost, resources etc.

Project Monitoring Systems (PMS) is the pioneer in the field of Project Monitoring especially visual simulation. Through its extensive research and development, PMS has contributed various innovative project monitoring products and services like 2D/3D visual monitoring, progress drawings, dashboards, enterprise project monitoring, claim analysis and various reports.

4.1 Gantt Chart

A Gantt chart is a horizontal bar chart developed as a production control tool in 1917 by Henry L. Gantt, an American engineer and social scientist. Frequently used in project management, a Gantt chart provides a graphical illustration of a schedule that helps to plan, coordinate, and track specific tasks in a project.
Gantt charts may be simple versions created on graph paper or more complex automated versions created using project management applications such as Microsoft Project or Excel. A Gantt chart is constructed with a horizontal axis representing the total time span of the project, broken down into increments (for example, days, weeks, or months) and a vertical axis representing the tasks that make up the project (for example, if the project is outfitting your computer with new software, the major tasks involved might be: conduct research, choose software, install software). Horizontal bars of varying lengths represent the sequences,timing, and time span for each task.
Gantt charts give a clear illustration of project status, but one problem with them is that they don't indicate task dependencies - you cannot tell how one task falling behind schedule affects other tasks.

4.2 Features of Gantt chart

- Dragging and dropping operations
- Changing the work calendar from popup menus.
- Resizing rows and columns with the mouse.
- Zooming in and out.
- Jumping to other display and master tables.
- Customizing the text displayed Customizing color-coding schemes.
- Customizing the display order of resources.
- Filtering the resources that are displays.
- Displaying late operations in a special way.
- Displaying broken constraints in a special way.
- Displaying setup time displaying lines representing time constraints between operations.

4.3 Advantages of Gantt chart

1. Clarity

One of the biggest benefits of a Gantt chart is the tools ability to boil down multiple tasks' timelines into a single document stakeholder throughout an organization can easily understand where teams are in process wild rasping the ways in which independent elementscome together 2-word project completion.

2. Communication

Teams can use Gantt charts to replace meetings and enhance others status updates. Simply clarifying positions offers and easy, visual method to help team members understand task progress.

3. Motivation

Some teams or team members become more effective when faced with a form of external motivation. Gantt charts offer teams they ability to focus work at the front if the task timeline, or at the tail end of a chart segment. Both types of team members can find Gantt charts meaningful as they plug their own work habits into the overall project schedule

4. Coordination

For project manager and resource scheduler, the benefits of Gantt chart include the ability to sequence events and reduce the potential for overburdening team members. Some project managers even use combination of chart to breakdown projects into more manageable sets of tasks.

5. Creativity

Sometimes a lack of time or resources forces project manager and team to find creative solutions. Seeing how individual tasks intertwine on Gantt charts open encourages new partnerships and collaborations that might not have evolved under traditional task assignment system.

6. Time Management

Most managers regard scheduling as one of the major benefits of Gantt chart in a creative environment. Helping team understand the overall impact of project delays can faster stronger collaborations while encouraging better task organization.

7. Flexibility

Whether you use excel to create Gantt charts or you load tasks into a more precise chart generator the ability to issue new charts as your projects evolve let you react to unexpected changes in project scope or timeline.

8. Manageability

For project managers handling complex assignments, like software publishing or event planning, the benefits of Gantt charts include externalizing assignment. By visualizing all the pieces of project puzzle, managers can make more focused, effective decisions about resources and timetables.

9. Efficiency

Another one of the benefits of Gantt chart is the ability for team members to leverage each other's deadline for maximum efficiency. For instance, while one team member waits on the outcome of three other tasks before starting a crucial piece of the assignment, he or she can perform other project tasks. Visualizing resource usage during projects allows managers to make better use of people, place, and things

10. Accountability

When project teams face major organizational change, documenting effort and outcomes Becomes crucial to career success. Using Gantt chart during critical projects allows both project managers and participants to track team progress, highlighting both big wins and major failures.

PLANNING AND SCHEDULING

Date	31 July	2 August	3 August	5 August	8 August	14 August
Requirement gathering						
Complete synopsis						
High level diagram						
Low level diagram						
Procedural design						
Coding						
Testing						

CHAPTER – 5

SYSTEM ANALYSIS

System Analysis

5.1 What is system analysis?

System analysis is a problem-solving technique that decomposes a system into its component pieces for the purpose of the studying how well those component parts work and interact to accomplish their purpose. According to the Merriam-Webster dictionary, systems analysis is "the process of studying a procedure or business in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way". Analysis and synthesis, as scientific methods, always go hand in hand; they complement one another.
Every synthesis is built upon the results of a preceding analysis, and every analysis requires a subsequent synthesis in order to verify and correct its results.

5.2 Advantages of system analysis

1. Save Money

Researching the road that should be taken by a business and gathering requirements is very vital in effective management. When a systems analysis is properly performed, it not only results in significant monetary savings but it makes certain that the correct path is taken with regards to applications. It also helps minimize errors and this reduces future IT requirements for fixing problems.

2. Enable Better Managements

If systems analysis was not done, then project management practices will be difficult to perform. This means that if the final products are ever made, they are going to be totally uncontrollable.

However, systems analysis allows for better management through changing the software to suit any business changes. This removes the requirement of rewriting the whole software once again, which is normally costly.

3. Improves Productivity

Through encouraging quick delivery and meeting all business requirements, systems analysis. Improve the general productivity of Specific projects and the organization as well. It also ensures better quality and effectively makes use of human resources. The quality of products is ensured through checking of the system constantly by the system analysts.

4. Effective Skill Use

Since systems analysis does not demand the use of special skills; it is easily teachable to the employees. Usually, common diagramming and modelling tools are utilized. It allows the managers to plan and control projects well. This is essential for the quick delivery of products.

5.3 Steps for System Analysis

1. Problem identification

There must be a clear identification and definition of the problem to be studied included scope (from one point to another point in time) of the process and overall criteria of effectiveness, efficiency, and adaptability.

2. Feasibility Study

The term "Feasibility study" implies a study of the practicality of a proposed project. It involves a preliminary analysis of the total requirements needed for the evaluation of the problem. Some problems might be easily defined but also might be too large to study adequately. In addition, it might not be possible to obtain all required information about a problem or there might be legal problems concerned with the analysis of the problem.

3. System definition (detailed study)

The purpose of this phase is to obtain a clear, concise and bounded definition. The subject of the proposal and its limits, and well as the objectives and anticipated benefits, should be specified. This section covers a wide range of activities:

(1) investigation of the current (existing) system, and

(2) analysis of the results, and

(3) identification of the problems in the current system.

4.Systems Design

The purpose of this phase is to suggest changes to transform the current system by altering the performance and activities to solve the problems that were identified.

5. System Implementation

This section is where you implement the solution(s) you found in section 4.

6. System Evaluation

This section is included to re-evaluate the effectiveness, efficiency, and adaptability of the Changes that were made to the process.

5.4 Requirement Specification

SYSTEM REQUIREMENTS SPECIFICATIONS

System requirements are expressed in a software requirement document. The Software requirement specification (SRS) is the official statement of what is required of the system developers. This requirement document includes the requirements definition and the requirement specification. The software requirement document is not a design document. It should set out what the system should do without specifying how it should be done. The requirement set out in this document is complete and consistent.

The technologies and the environment which are used in this project are: -

Software used:

1. Development tool - Visual Studio
2. Database – My SQL Database
3. Language used – HTML, CSS, JavaScript

Hardware used:

- CPU Configuration -

-Intel i5 processor 10th gen

-Ram 8 GB

(*We used these configurations. These are not a necessity. Lower configurations can also be used.)

- Monitor -

Any monitor.

Operating System:

Windows 10

(*Or any other version can also be used.)

TECHNOLOGIES USED

Back-End

SQL

Structured Query Language (SQL) is a standardized programming language that is used to manage relational databases and perform various operations on the data in them. Initially created in the 1970s, SQL is regularly used not only by database administrators, but also by developers writing data integration scripts and data analysts looking to set up and run analytical queries.This database language is mainly designed for maintaining the data in relational database management systems. It is a special tool used by data professionals for handling structured data (data which is stored in the form of tables). It is also designed for stream processing in RDSMS.

Programming Languages used in development: -

JavaScript

JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java. JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform.

HTML

HTML stands for Hyper Text Markup Language, which is the most widely used language on Web to develop web pages. Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

CSS

Cascading Style Sheets, fondly referred to as CSS, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page.
CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

Front-End

UI Frameworks used for development: -

Bootstrap
Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

JavaScript Libraries used: -

jQuery
jQuery is a JavaScript library which is a free, open-source software designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax.

Font scripts used: -

Google Font API
Google Font API is a web service that supports open-source font files that can be used on your web designs.

Font Awesome
Font Awesome is a font and icon toolkit based on CSS and Less.

Database

MySQL
MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by **Oracle Company**.
It is fast, scalable, and easy to use database management system in comparison with Microsoft SQL Server and Oracle Database. It is commonly used in conjunction with PHP scripts for creating powerful and dynamic server-side or web-based enterprise applications.

Server-side

PHP - PHP is a general-purpose scripting language geared toward web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994.The PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response.

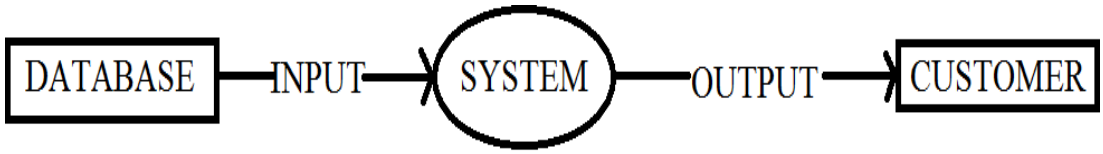
5.6 Data Flow Diagrams

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an information system. A DFD is often used as a preliminary step to create an overview of the system. DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequence or in parallel.

History

Data flow diagrams were proposed by Larry Constantine. The original developer of structured design based on Martin and Estrin's "Data Flow Graph" model of computation. Starting in the 1970s, data flow diagrams (DFD) became a popular way to visualize the major steps and data involved in software system processes. DFDs were usually used to show data flows in a computer system, although they could in theory be applied to business process modelling. DFD were useful to document the major data flows or to explore a new high-level design in terms of data flow.



DATA FLOW DIAGRAM

Data flow diagram Symbols:

External entities: rectangular box

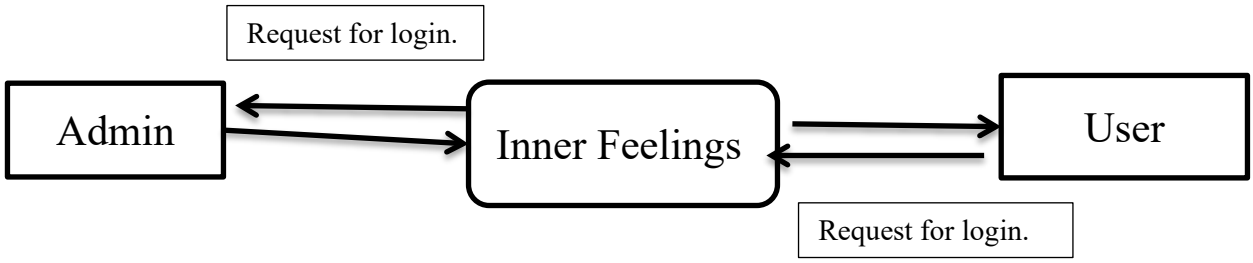
Data flow: arrow headed lines

Process/ function: Rectangle with curved edges.

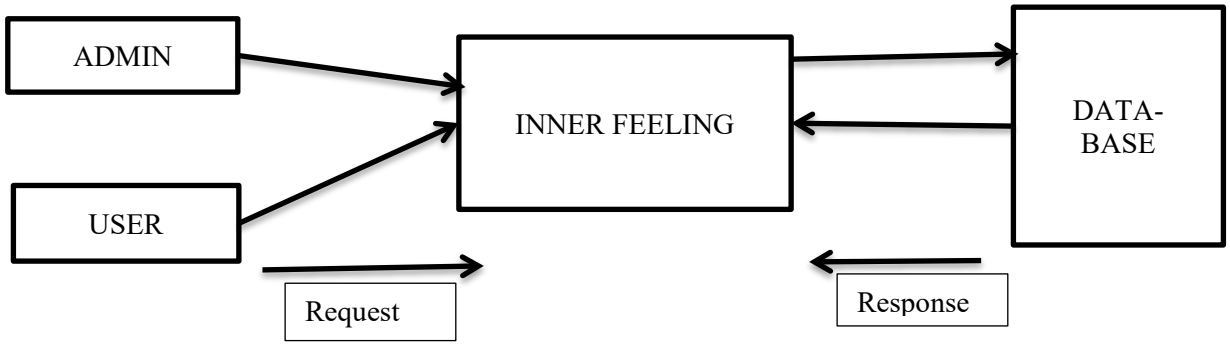
Data store: rectangular box marked with D.

Data Flow Diagram for Online Book Store

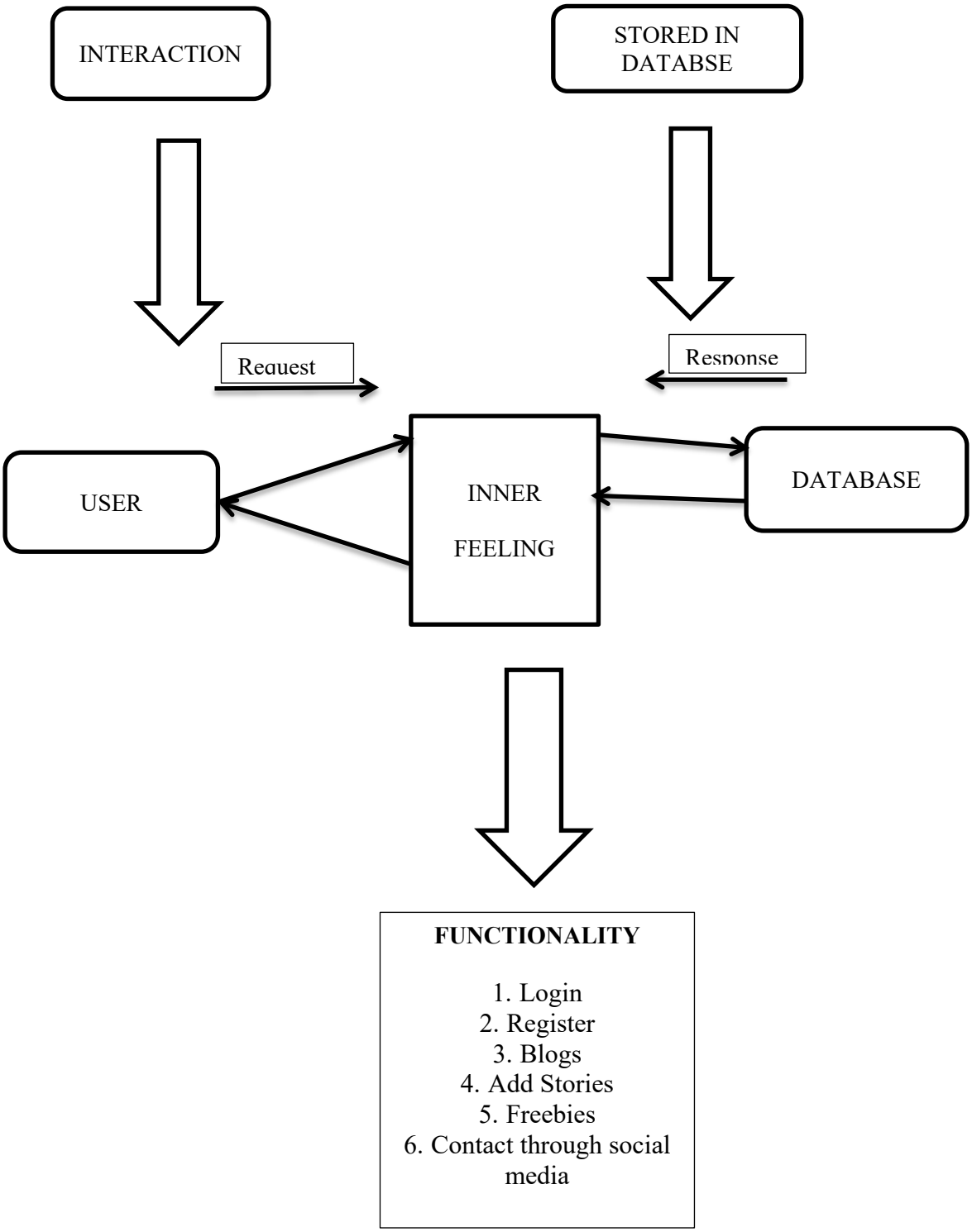
DFD LEVEL 0



DFD LEVEL 1



DFD Level 2


INTERACTION
STORED IN DATABSE
Request
Response
USER
INNER
FEELING
DATABASE
FUNCTIONALITY
1. Login
2. Register
3. Blogs
4. Add Stories
5. Freebies
6. Contact through social media

5.7 Entity Relationship Diagrams

5.7.1 Entity:

An entity is a distinct or discrete things or objects which helps us to make an efficient data management system providing the relation between the entities.

An entity is something that has certain attributes of properties which may be assigned values. Thing having real existence is called an entity

An entity is a person, place, thing, event or conceptual object

5.7.2 Attribute:

In general, an attribute is a characteristic. In a database management system (DBMS), an attribute refers to a database component, such a table. It also may refer to a database field. Attributes describe the instances in the row of a database.

5.7.2.1 Types of Attribute

1. Required or Optional Attributes

A required attribute is an attribute that must have a value in it, while an optional attribute may not have a value in it and can be left blank. The reasoning for making an attribute required is to put emphasis on what is important in that entity and what makes it stand out from other entities.

2. Keys and non-keys Attributes

In every entity an attribute or grouped attributes uniquely identify that entity. These attributes are the key attributes and range from Primary key (single attribute identifier) to a Composite Key (Multi attribute Identifier). The rest of the attributes after the identifier are considered the non-key attributes or descriptors, which just describe the entity.

3. Single and Composite Attributes

Attributes can be classified as having many parts to them or just a single unbreakable attribute. The composite attribute is an attribute that can be subdivided into other single attributes with meanings of their own. A single attribute is just an attribute that cannot be subdivided into parts

4. Single-valued and multi valued Attributes

Attributes can be classified as single or multi value. The single-value attribute can only have one value, while the multi valued attributes usually can store multiple data in them.

5. Derived Attributes

The last category that attributes can be defined is called a derived attribute, where one attribute is calculated from another attribute. The derived attribute may not be stored in the database but rather calculated using algorithm.

5.7.3 Relationship:

Types of Relationship -

One to One

One entity is associated with another entity.

One to Many

One entity is associated with many other entities.

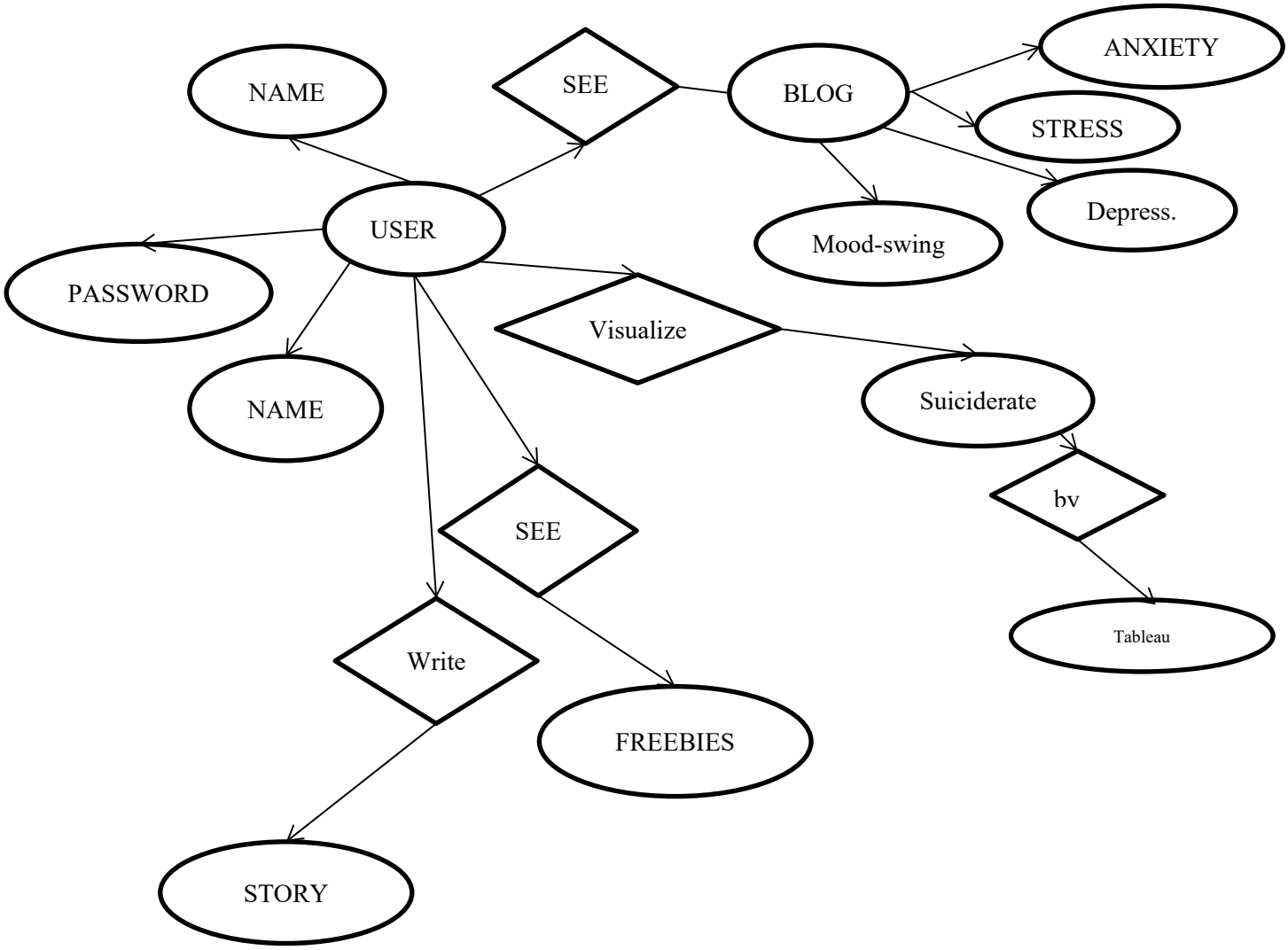
Many to One

Many entities are associated with only one entity.

Many to Many

Many entities are associated with many other entities

Entity Relationship Diagram for Inner Feelings



CHAPTER – 6

SYSTEM DESIGN

System Design

The objective of this chapter is to convert the logical model from the requirement analyze in previous chapter, into a physical model of the target system. Specifically, the aspects of system structure design and database design are explained. This simply means that the results of the requirement analysis in the previous chapter, on “what to do”, are used to determine "how to do".

6.1 System structure design

The system structure and function are the core parts in the system design. The structure can be clearly seemed in the diagram. Each structural module is analyzed, in order to lay thefoundation for design and implementation in the future.

Input Design

Once the analysis and design of the system has been done, it would be necessary to identify the data that are required to be processed to produce the outputs. Input is one of the most expensive phases of the operation of a computerized system and creates sometimes a major problem. Different type of problem with a system can usually be traced back to faulty input design method, therefore, that the input data are the lifeblood of a system and must be analyzed and designed with utmost care and consideration. Input design features can ensure the reliability of the system and generate correct reports form the accurate data. The input design also determines whether the user can interact efficiently with the system.

Output Design

Presenting the data processed by a computer-based information system in an attractive and usable form has become very essential these days’ success and acceptance of a system to some extent depends on good presentation. Therefore, system analyst must know fully how to design output report in an attractive way. Many new output devices are being introduced in the market because of recent development in computer technology. System analyst must be aware of these

new technologies and try to use these new output devices if possible. Currently, excellent graphic displays are widely available. Speech output systems are also fast emerging.

6.2 Advantages of System Design

1. Practicality:

The System must be stable and can be operated by people with average intelligence.

2. Efficiency:

These involve accuracy, timeliness and comprehensive to the system out.

3. Cost:

It is a desirable to aim for a system with a minimum cost subject to the condition that it must satisfy all the requirements.

4. Flexibility:

The system should be modifiable depending on the changing needs of the user. Such modification should not entail extensive reconstructing or recreation of software. It should also be portable to different computer system.

5. Security:

This is very important aspect of the design and should cover areas hardware, reliability, fall back procedures, physical security of data and provision for detection of fraud and abuse.

6. Consistency:

There should 'not be any inconsistency in the design.

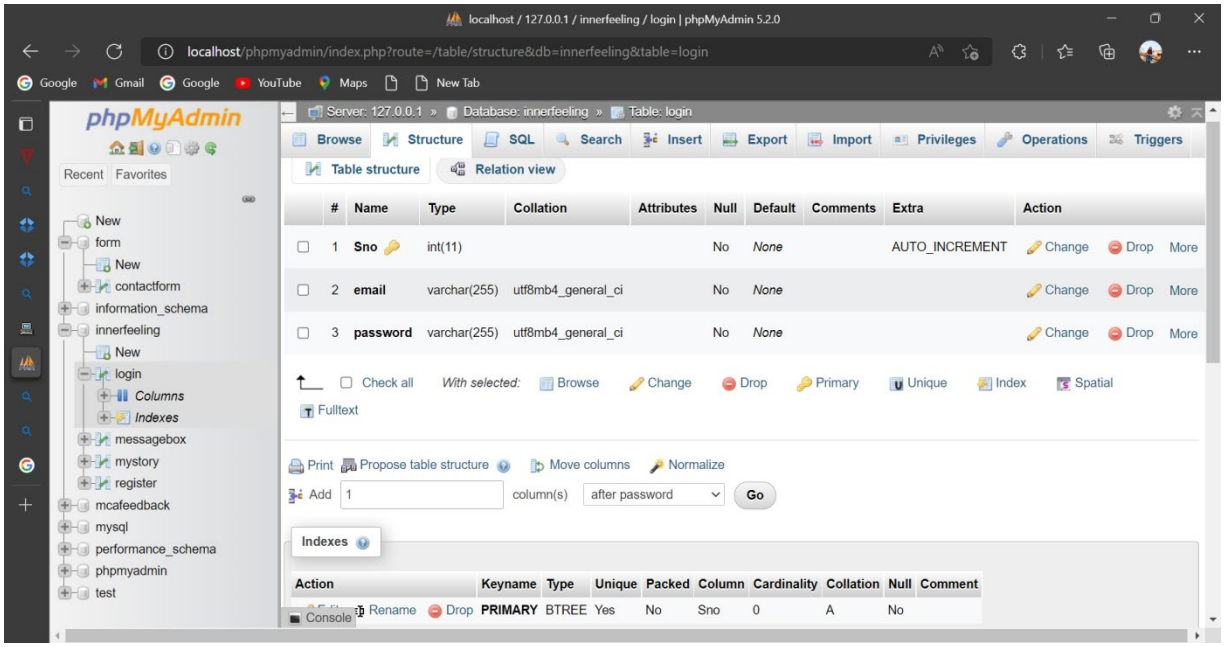
7. Correctness:

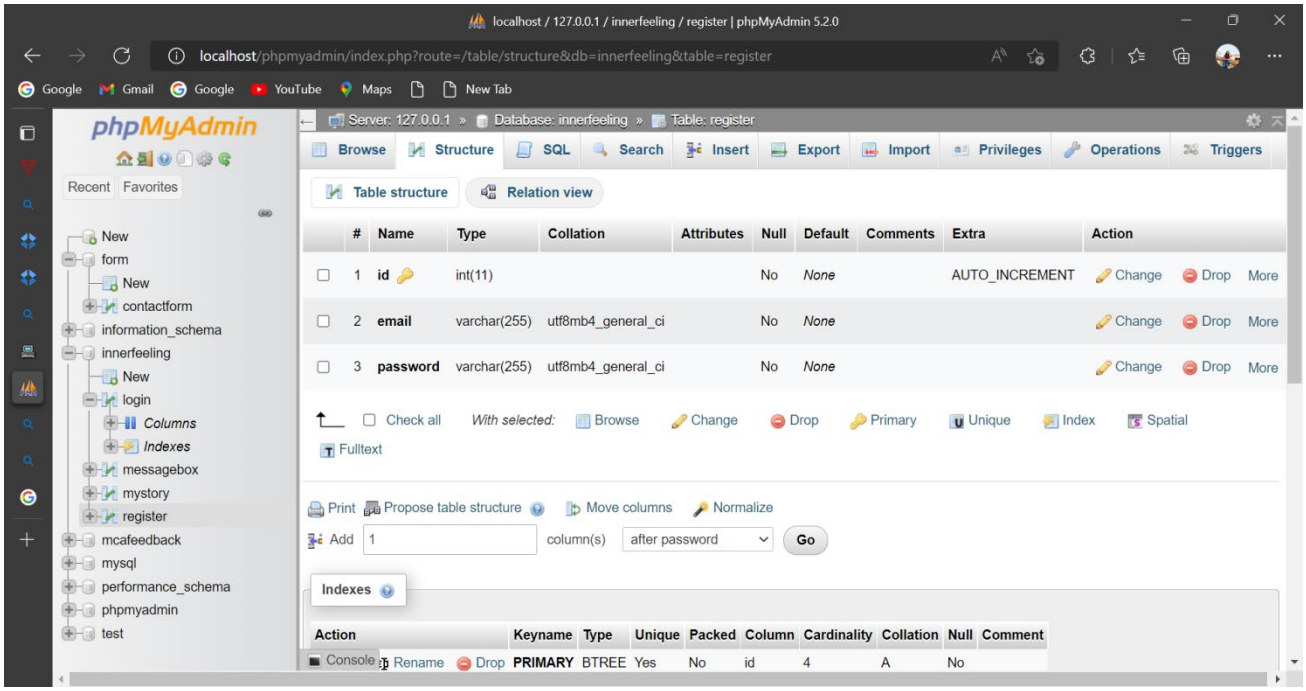
The design should be correct as per the requirements.

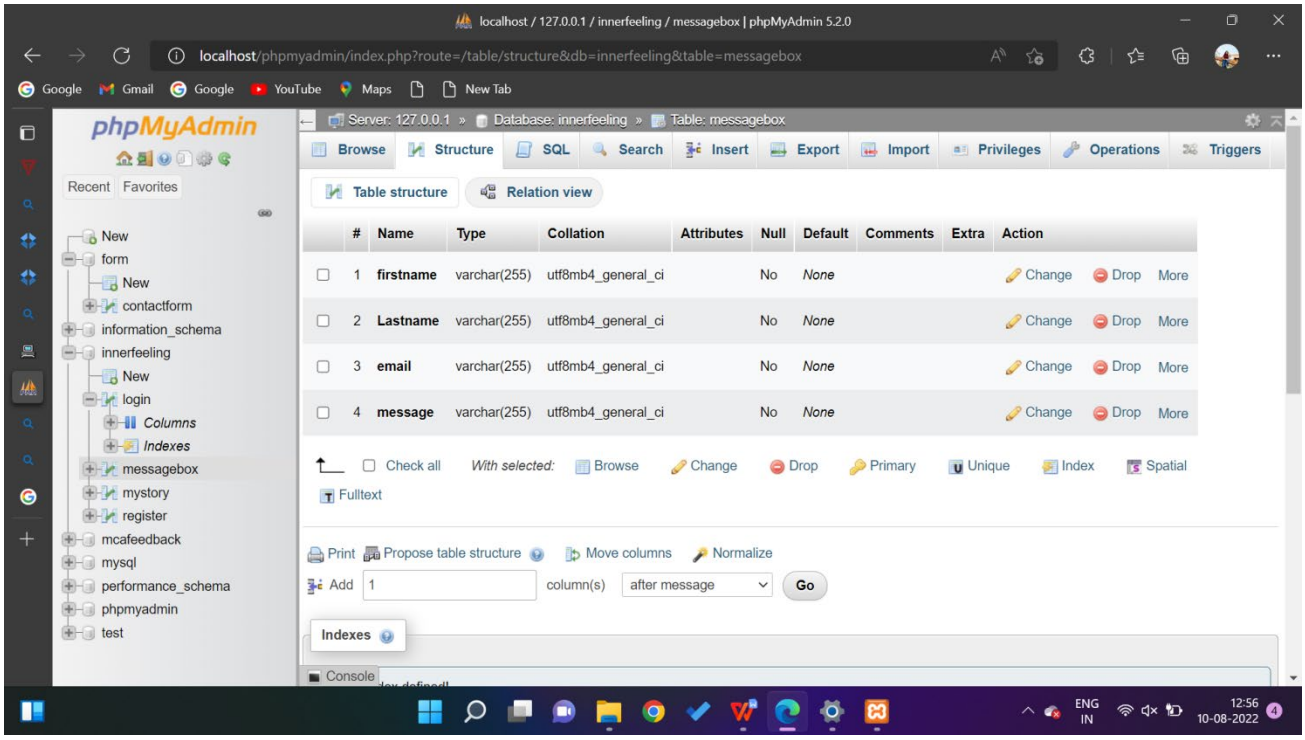
8. Completeness:

The design should have the entire component like data structures, modules external interfaces etc.

Database






localhost / 127.0.0.1 / innerfeeling / messagebox | phpMyAdmin 5.2.0
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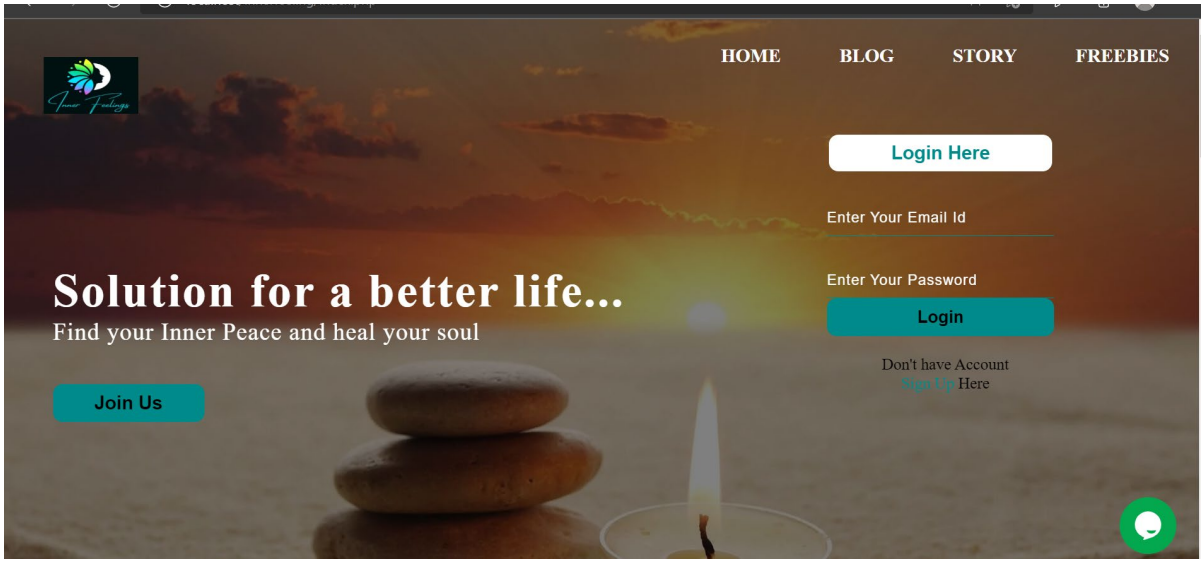
Gmail
Google
YouTube
Maps
New Tab
phpMyAdmin
Recent
Favorites
New
form
New
contactform
information_schema
innerfeeling
New
login
Columns
Indexes
messagebox
mystory
register
mcafeedback
mysql
performance_schema
phpmyadmin
test
Server: 127.0.0.1 » Database: innerfeeling » Table: messagebox
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Table structure
Relation view
Name Type Collation Attributes Null Default Comments Extra Action
1 firstname varchar(255) utf8mb4_general_ci No None Change Drop More
2 Lastname varchar(255) utf8mb4_general_ci No None Change Drop More
3 email varchar(255) utf8mb4_general_ci No None Change Drop More
4 message varchar(255) utf8mb4_general_ci No None Change Drop More
Check all
With selected:
Browse
Change
Drop
Primary
Unique
Index
Spatial
Fulltext
Print
Propose table structure
Move columns
Normalize
Add 1 column(s) after message Go
Indexes
Console
ENG IN
12:56
10-08-2022

CHAPTER – 7

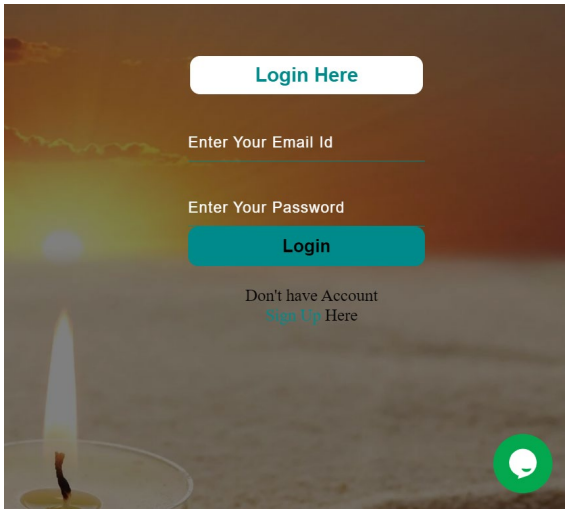
INPUT/OUTPUT FORM DESIGN

Screenshots of Website

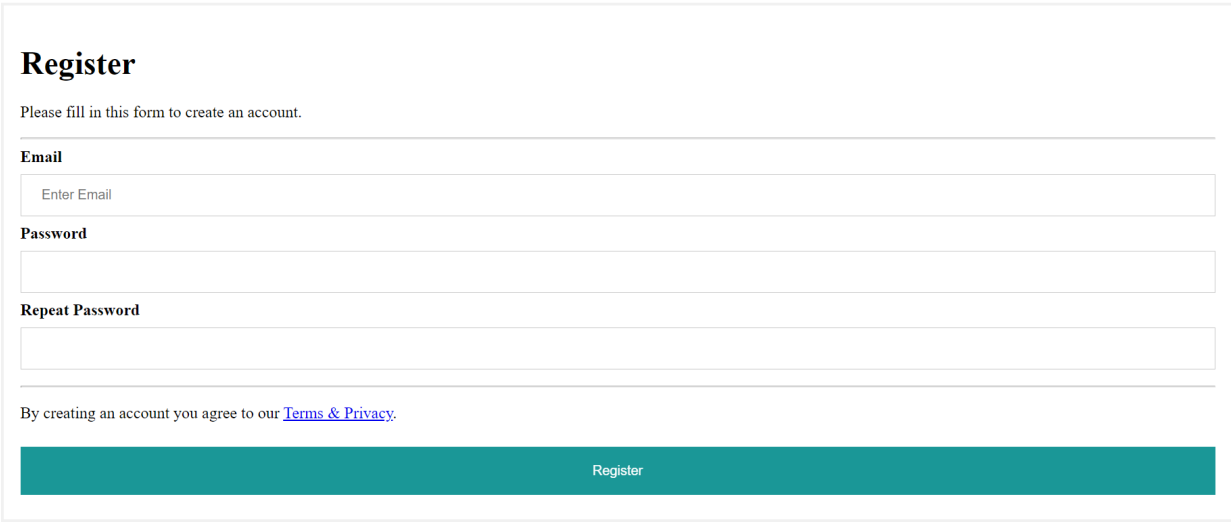
Main Screen



Login Page



Registration Page



Main Menu Options

Chatbot

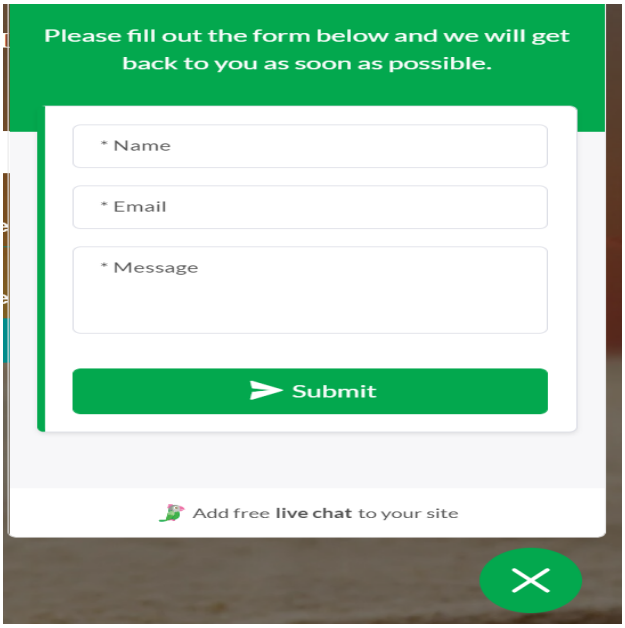
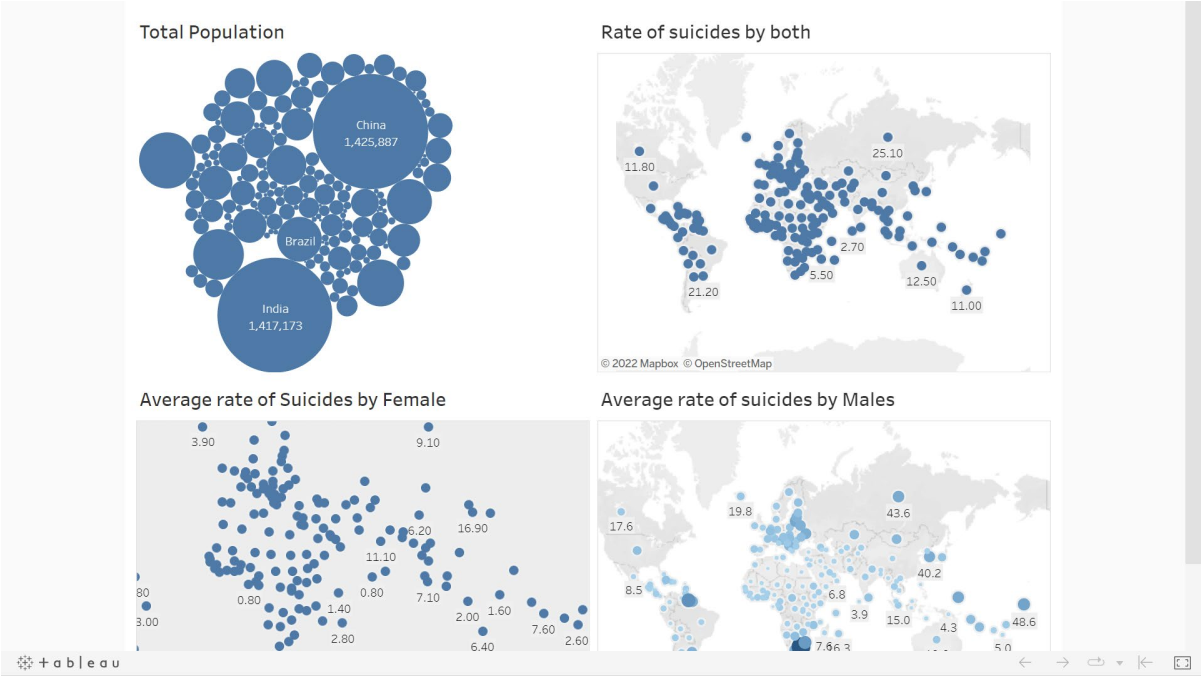
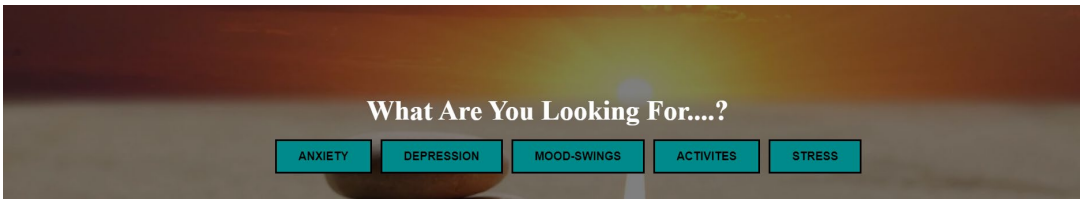


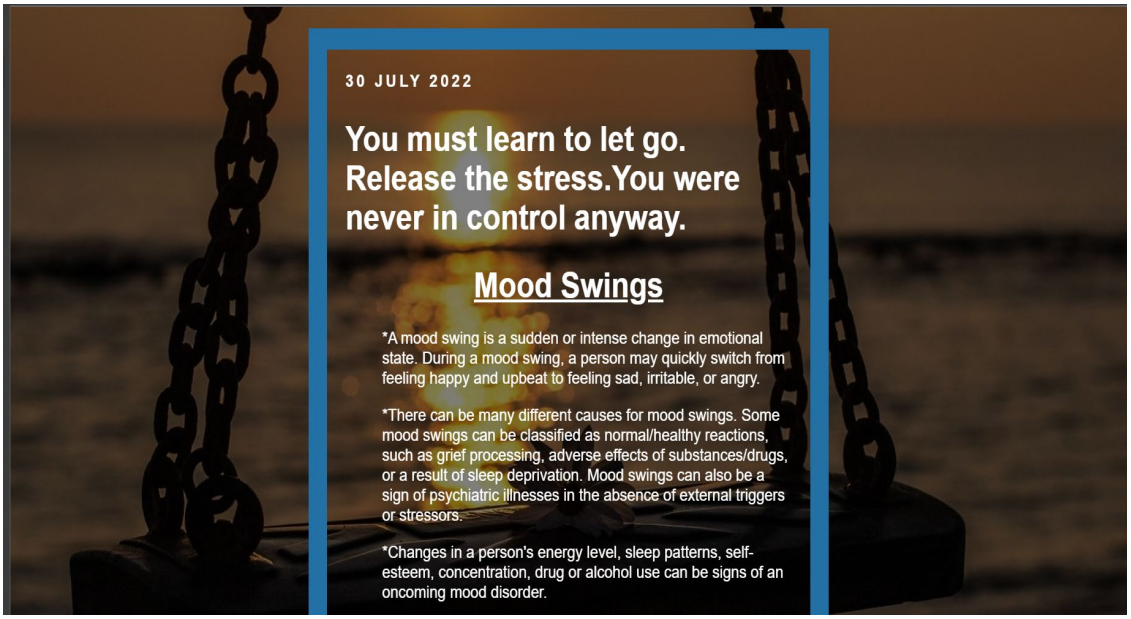
Tableau Dashboard



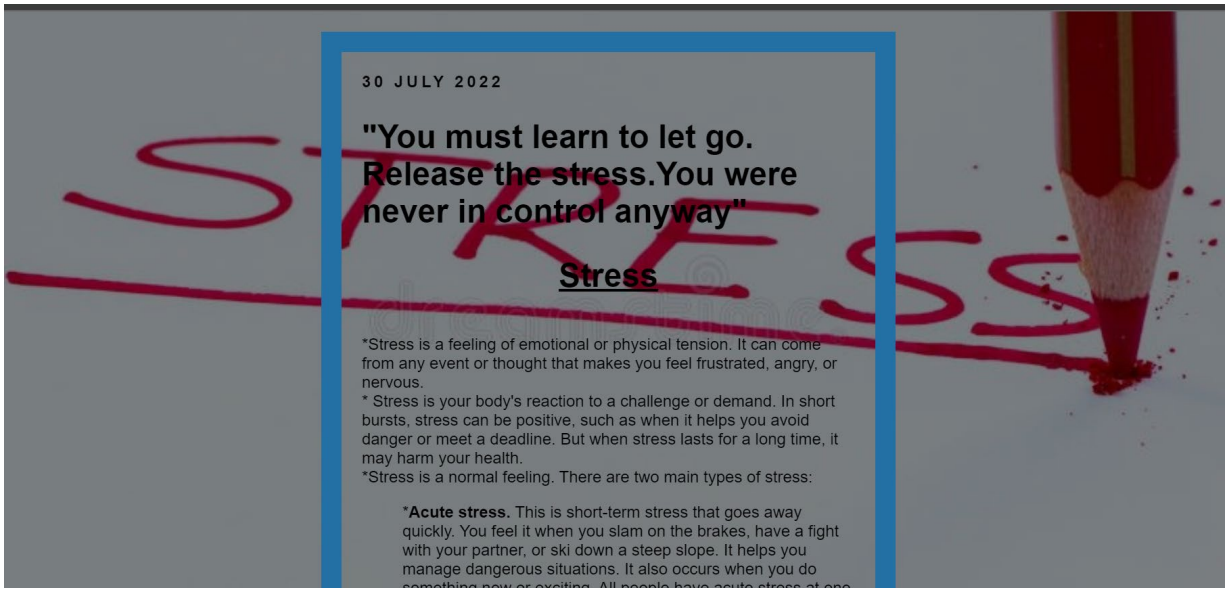
Blogs



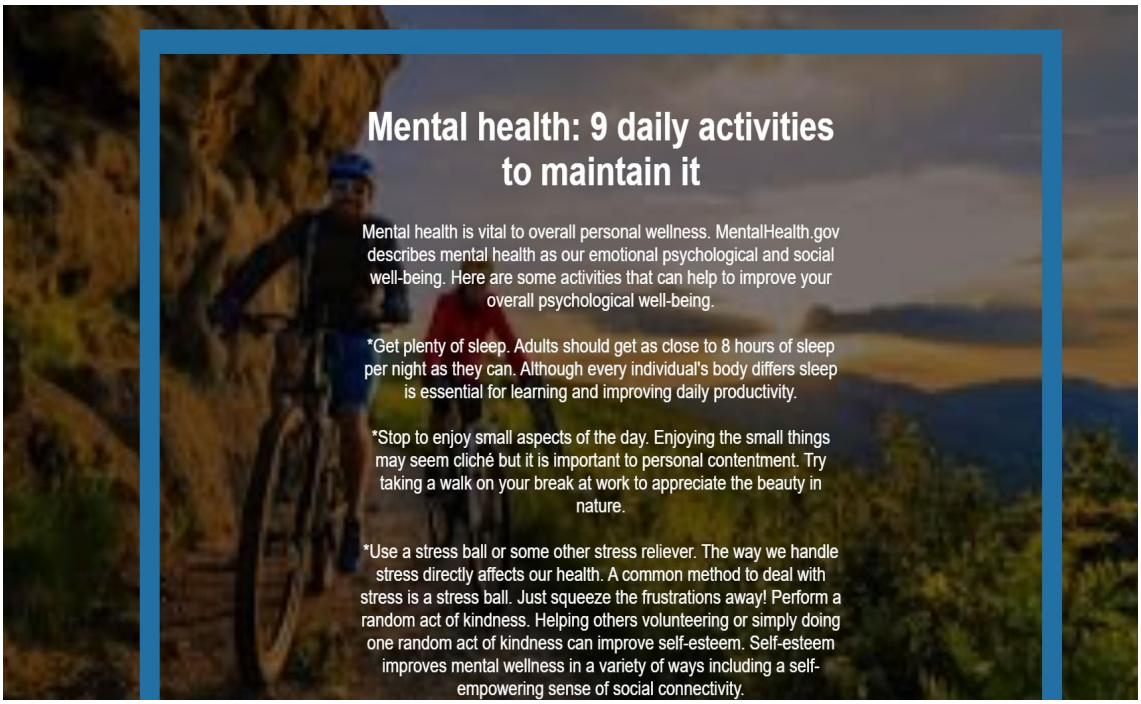
Sample of blog(Mood-swings)



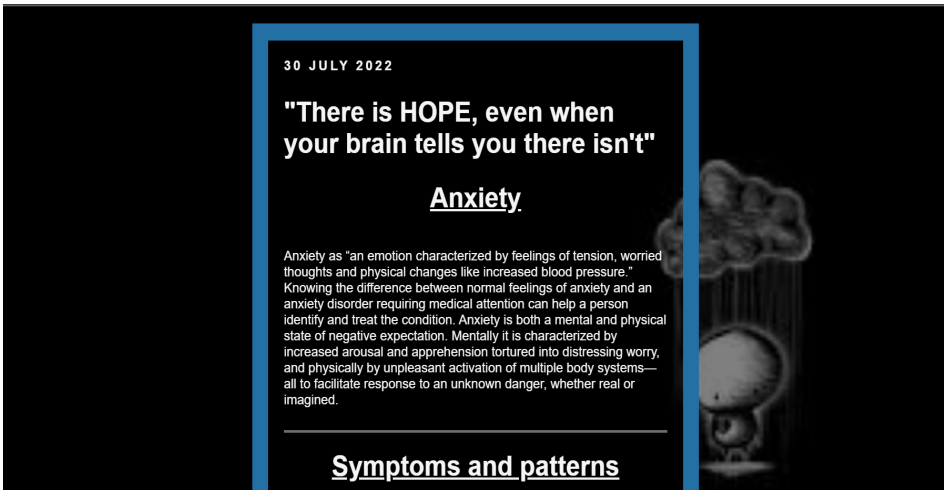
Sample of blog(Stress)



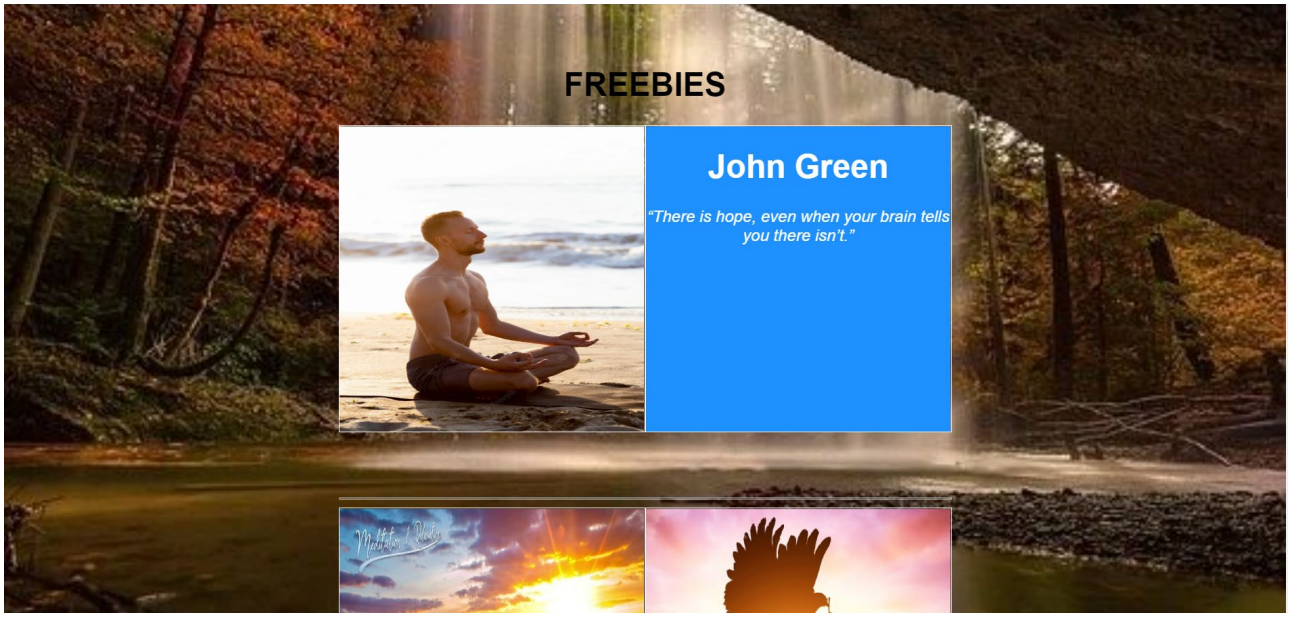
Sample of blog(Activites)



Sample of blog(Anxiety)



Freebies


FREEBIES
John Green
"There is hope, even when your brain tells you there isn't."

CHAPTER – 8

SYSTEM TESTING

System Testing

8.1 What is Testing?

System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black box testing, and as such, should require no knowledge of the inner design of the code or logic.

Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test. Software testing can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation. Test techniques include, but are not limited to, the process of executing a program or application with the intent of finding software bugs (errors or other defects). It involves the execution of a software component or system component to evaluate one or more properties of interest. In general, these properties indicatethe extent to which the component or system under test:

- meets the requirements that guided its design and development,
- responds correctly to all kinds of inputs,
- performs its functions within an acceptable time,
- is sufficiently usable,
- can be installed and run in its intended environments, and
- achieves the general result its stakeholder’s desire.

As the number of possible tests for even simple software components is practically infinite, all software testing uses some strategy to select tests that are feasible for the available time and resources. As a result, software testing typically (but not exclusively) attempts to executea program or application with the intent of finding software bugs (errors or other defects).

Software testing can provide objective, independent information about the quality of software and risk of its failure to users and/ or sponsors.

Software testing can be conducted as soon as executable software (even if partially complete) exists. The overall approach to software development often determines when and how testing is conducted. For example, in a phased process, most testing occurs after system requirements have been defined and then implemented in testable programs. In contrast, under an Agile approach, requirements, programming, and testing are often done concurrently

8.2 What are the objectives of system testing?

Software Testing has different goals and objectives. The major objectives of Software testing are as follows:

- Gaining confidence in and providing information about the level of quality.
- To prevent defects.
- To make sure that the result meets the business and user requirements.
- To ensure that it satisfies the BRS that is Business Requirement Specification and SRS that is System Requirement Specifications.
- To gain the confidence of the customers by providing them a quality product.
- Finding defects which may get created by the programmer while developing the software.

8.3 Levels of Software Testing

Before Segue releases an application, it undergoes a thorough testing process to ensure that the app is working in the way it was intended. There are four main stages of testing that need to be completed before a program can be cleared for use: unit testing, integration testing, System testing, and acceptance testing. Why not include Regression Testing? Regression Testing is not a separate level of testing; it is just a type of testing that can be performed during any of the four main testing stages.

Unit Testing During this first round of testing, the program is submitted to assessments that focus on specific units or components of the software to determine whether each one is fully functional. The main aim of this endeavor is to determine whether the application functions as designed. In this phase, a unit can refer to a function, individual program or even a procedure, and a white box testing method is usually used to get the job done. One of the biggest benefits of this testing phase is that it can be run every time a piece of code is changed, allowing issues to be resolved as quickly as possible. It's quite common for software developers to perform unit tests before delivering software to testers for formal testing.

Unit Testing

During this first round of testing the program is submitted to assessments that focus on specific units or components of the software to determine whether each one is fully functional. The main aim of this endeavor is to determine whether the application functions as designed. In this phase, a unit can refer to a function, individual program or even a procedure, and a white box testing method is usually used to get the job done. One of the biggest benefits of this testing phase is that it can be run every time a piece of code is changed, allowing issues to be resolved as quickly as possible.

Integration Testing

Integration testing allows individuals the opportunity to combine all the units within a program and test them as a group. This testing level is designed to find interface defects between the modules/functions. This is particularly beneficial because it determines how efficiently the units are running together. Keep in mind that no matter how efficiently each unit is running, if they are not properly integrated, it will affect the functionality of the

software program. In order to run these types of tests, individuals can make use of various testing methods, but the specific method that will be used to get the job done will depend greatly on the way in which the units are defined.

System Testing

System testing is the first level in which the complete application is tested. The goal at this level is to evaluate whether the system has complied with all the outlined requirements and to see that it meets Quality Standards. System testing is undertaken by independent testers who haven t played a role in developing the program. This testing is performed in an environment that closely mirrors production. System testing is very important because it verifies that the application meets the technical, functional, and business requirements that were set by the customer.

Acceptance Testing

The final level, Acceptance testing (or User Acceptance Testing), is conducted to determine whether the system is ready for release. During the Software development life cycle, (requirements changes can sometimes be misinterpreted in a fashion that does not meet the intended needs of the users. During this final phase, the user will test the system to find out whether the application meets their business needs. Once this process has been completed and the software has passed, the program will then be delivered to production.

As you can see, the extensiveness of these tests is just another reason why bringing your software testers in early is important. When a program is more thoroughly tested, a greater number of bugs will be detected; this ultimately results in higher quality software.

8.4 Types of testing

Black box testing

Internal system design is not considered in this type of testing. Tests are based on requirements and functionality.

White box testing

This testing is based on knowledge of the internal logic of an application's code. Also known as Glass Box Testing, Internal software and code working should be known for this type of testing. Tests are based on coverage of code statements, branches, paths, conditions.

Unit testing

Testing of individual software components or modules. Typically done by the programmer and not by testers, as it requires detailed knowledge of the internal program design and code may require developing test driver modules or test harnesses.

Incremental integration testing

Bottom-up approach for testing i.e. continuous testing of an application as new functionality is added; Application functionality and modules should be independent enough to test separately done by programmers or by testers.

Integration testing

Testing of integrated modules to verify combined functionality after integration. Modules are typically code modules, individual applications, client and server applications on a network, etc. This type of testing is especially relevant to client/server and distributed systems.

Functional testing

This type of testing ignores the internal parts and focus on the output is as per requirement or not. Black box type testing geared to functional requirements of an application.

System testing

Entire system is tested as per the requirements. Black-box type testing that is based on overall requirements specifications, covers all combined parts of a system.

End to-end testing

Like system testing, involves testing of a complete application environment in a situation that mimics real-world use, such as interacting with a database, using network communications, or interacting with other hardware, applications, or systems if appropriate.

Sanity testing

Testing to determine if a new software version is performing well enough to accept it for a major testing effort. If application is crashing for initial use, then system is not stable enough for further testing and build or application is assigned to fix.

Regression testing

Testing the application for the modification in any module or functionality. Difficult to cover all the system in regression testing so typically automation tools are used for these testing types.

Acceptance testing

Normally this type of testing is done to verify if the system meets the customer specified requirements. User or customer do this testing to determine whether to accept application

Load testing

It's a performance testing to check system behavior under load. Testing an application under heavy load, such s testing of a web site under a range of loads to determine at what point system's response time degrades or fails

Stress testing

System testing is stressed beyond its specification to check how and when it fails, performed under heavy load like putting large number beyond storage capacity, complex database queries, continuous input to system or database load

Performance testing

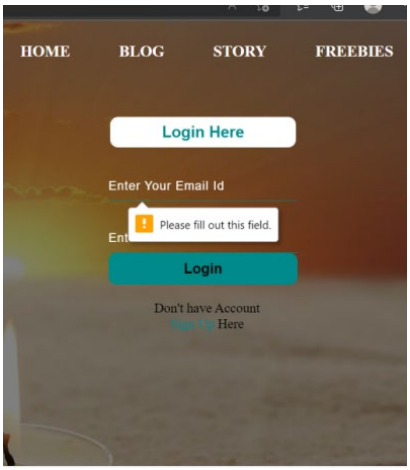
Term often used interchangeably with stress and load testing. To check whether system meets Performance requirements. Used different performance and load tools to do this.

Usability testing

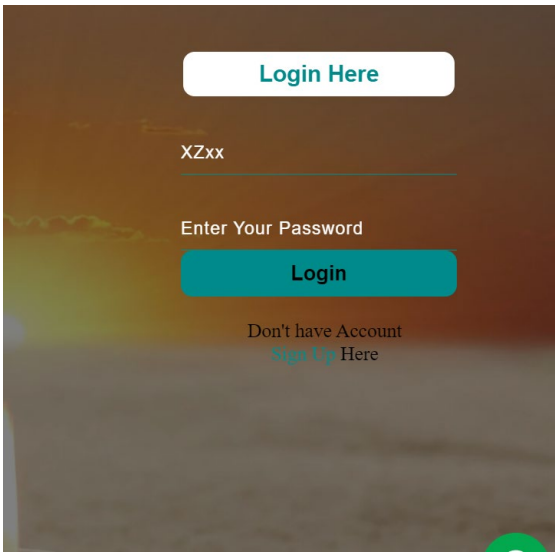
User-friendliness check. Application flow is tested, can new user understand the application easily, Proper help documented whenever user stuck at any point. Basically, system navigation is checked in this testing.

TEST CASES

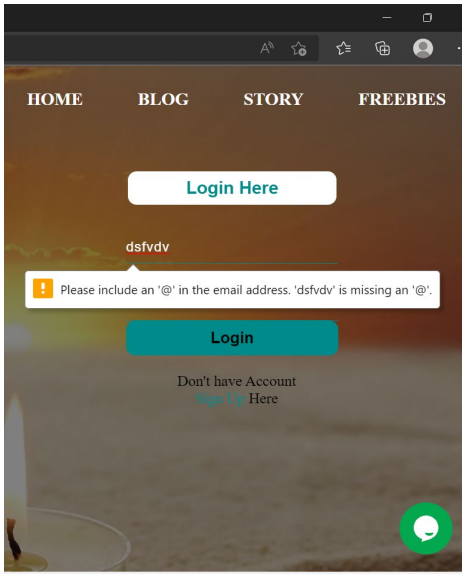
Test Case 1: No Username entered.



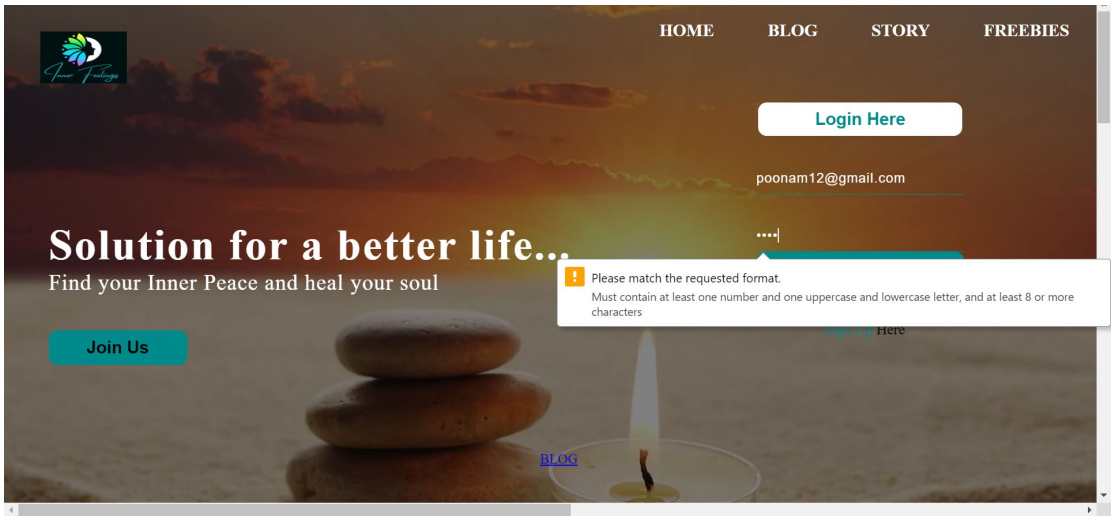
Test Case 2: No Password entered.



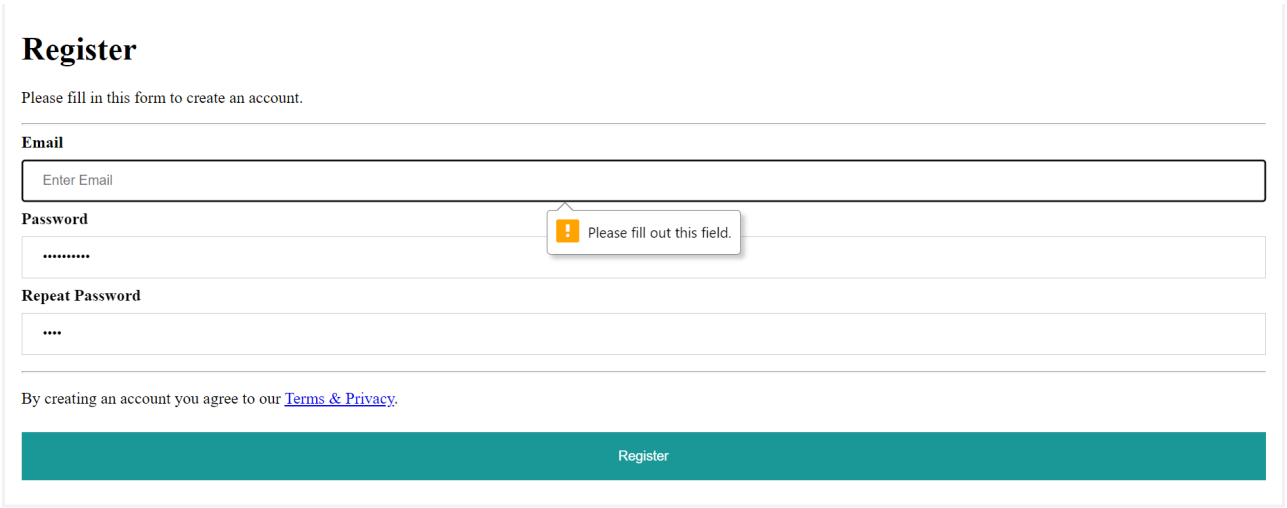
Test Case 3: Wrong User Id entered.



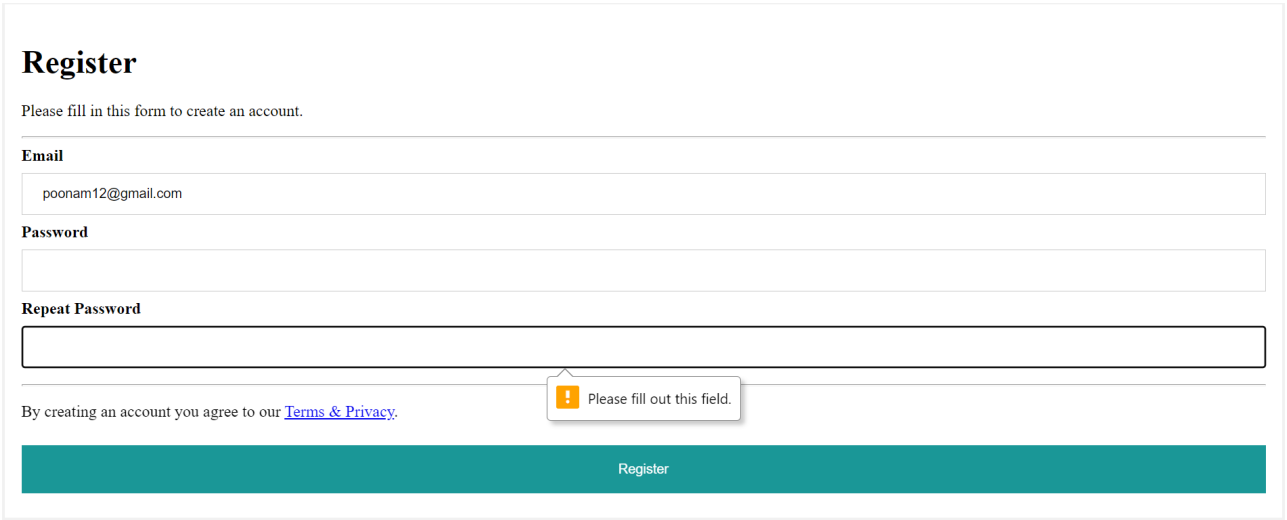
Test Case 4: Short password length.



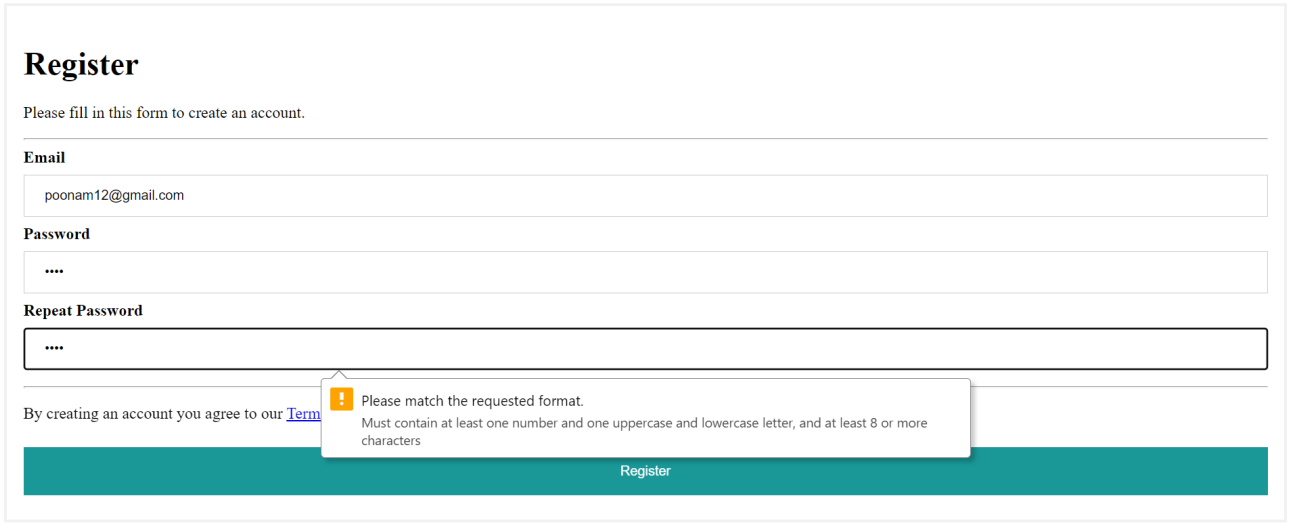
Test Case 5: No Email entered.



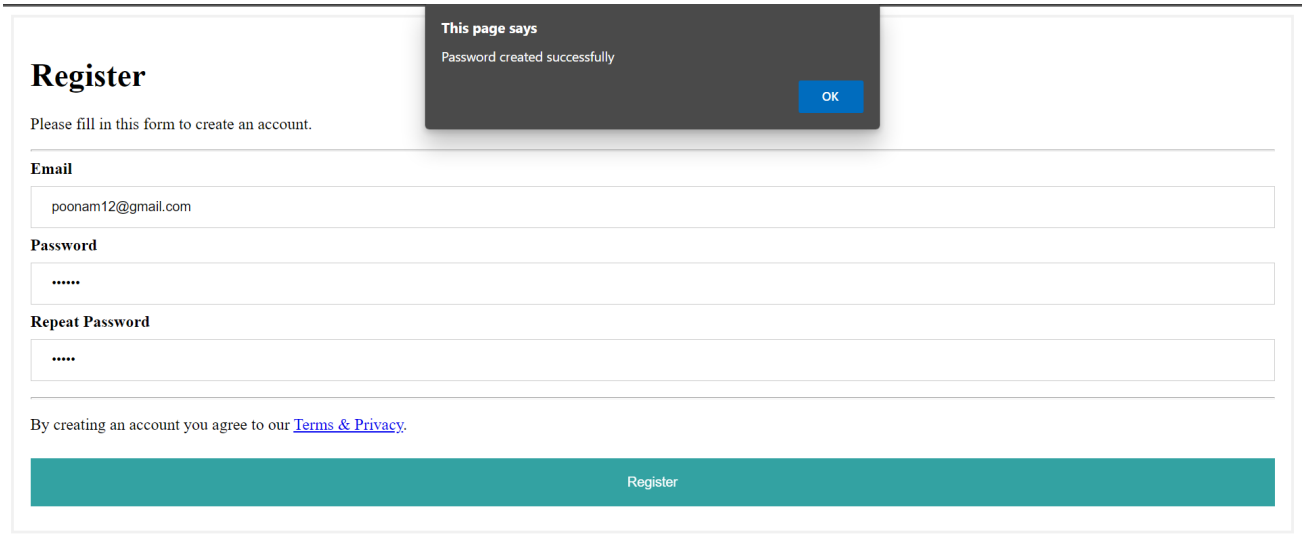
Test Case 6: No Password entered.



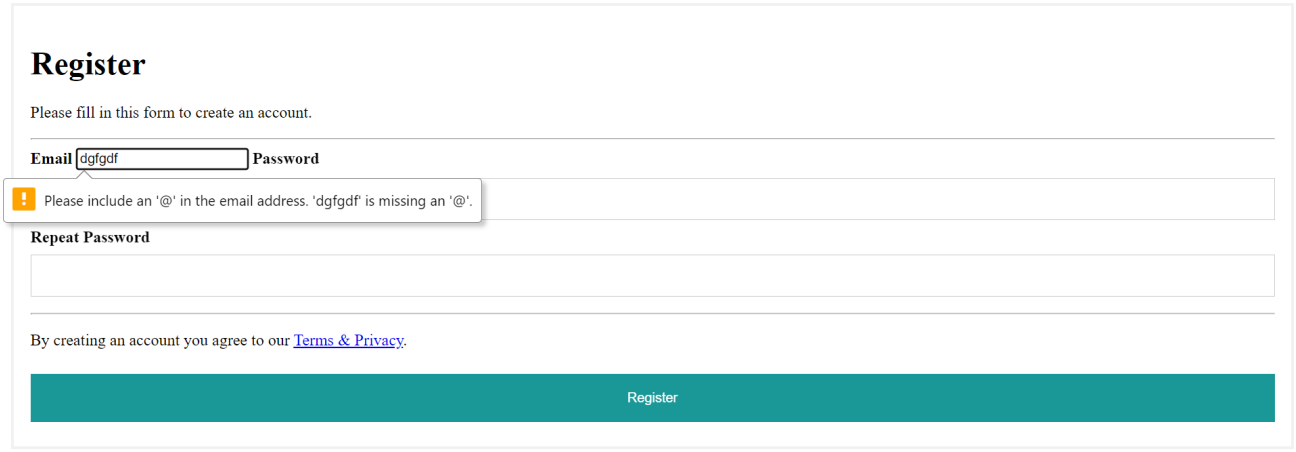
Test Case 7: Password Length too short.



Test Case 8: Both passwords match.



Test Case 9: Invalid Email.



CHAPTER – 9

SYSTEM IMPLEMENTATION

System Implementation

9.1 System Requirements (Hardware/software)

The technologies and the environment which are used in this project are: -

Software used:

4. Development tool - Visual Studio
5. Database – My SQL
6. Language used – JavaScript

Hardware used:

- CPU Configuration -

-Intel i5 processor 10th gen

-Ram 8GB

(*We used these configurations. These are not a necessity. Lower configurations can also be used.)

- Monitor -

Any monitor.

Operating System:

Windows 10

(*Or any other version can also be used.)

Technologies Used

Back-End

SQL

Structured Query Language (SQL) is a standardized programming language that is used to manage relational databases and perform various operations on the data in them. Initially created in the 1970s, SQL is regularly used not only by database administrators, but also by developers writing data integration scripts and data analysts looking to set up and run analytical queries.This database language is mainly designed for maintaining the data in relational database management systems. It is a special tool used by data professionals for handling structured data (data which is stored in the form of tables). It is also designed for stream processing in RDSMS.

Programming Languages used in development: -

JavaScript

JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java. JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform.

HTML

HTML stands for Hyper Text Markup Language, which is the most widely used language on Web to develop web pages. Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

CSS

Cascading Style Sheets, fondly referred to as CSS, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page.
CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

Front-End

UI Frameworks used for development: -

Bootstrap

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

JavaScript Libraries used: -

jQuery

jQuery is a JavaScript library which is a free, open-source software designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax.

Font scripts used: -

Google Font API

Google Font API is a web service that supports open-source font files that can be used on your web designs.

Font Awesome

Font Awesome is a font and icon toolkit based on CSS and Less.

Database

My SQL

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by Oracle Company.
It is fast, scalable, and easy to use database management system in comparison with Microsoft SQL Server and Oracle Database. It is commonly used in conjunction with PHP scripts for creating powerful and dynamic server-side or web-based enterprise applications.

Server-side

PHP -PHP is a general-purpose scripting language geared toward web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994.The PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response.

CHAPTER – 10

DOCUMENTATION

Documentation

9.1 What is Documentation?

Documentation is a set of documents provided on a paper, or online, or on a digital or analogue media such as audio tape or CD's, example are user guides, white paper, online help, quick – references guide. It is becoming less common to see paper documentation.

Documentation is distributed in this field are termed documental list. This field changed its name to information science in 1968.

9.2 Types of Documentations

9.2.1 Internal Documentation

Internal documentation is written as a comment. Computer software is said to have Internal Documentation if the notes on how and why various parts of code operate is included within the source code as comments. It is often combined with meaningful variable names with the intention of providing potential future programmers a means of understanding the workings of the code.

This contrasts with external documentation, where programmers keep their notes and explanations in a separate document.

Internal documentation has become increasingly popular as it cannot be lost, and any Programmer working on the code is immediately made aware of its existence and has it readily available.

9.2.2. External documentation

External documentation is written in a place where people who need to use the software can read about how to use the software. External documentation can be broken down into library documentation, which describes tools that a programmer can use, and user documentation, which is intended for users of an application.

The line between internal and library documentation is not clear cut because the trend is to write library documentation inside a program as comments, relying on software that extracts the documentation and puts it into a form suitable for people who only want to use the library. For example, the extensive Java library documentation is created by software called Javadoc that reads Java programs, including comments, and writes documentation

9.3 Importance of documentation

Such functions in a piece of software solves a specific problem. Before you try to solve any problem, you should have a good understanding of exactly what the problem is. It makes no

sense just to start writing and then, afterwards, look at what you have come up with to see whether it solves any useful problem!

Inexperienced computer programmers imagine that they can keep all problem descriptions in their heads. Experience has shown that they can't. Three issues come up.

1. When writing a function definition without written documentation, you only have a rough idea of what it is supposed to do. While you write, the idea morphs in your head. A simple interruption can cause the idea to lose what focus it has. You start thinking about the program instead of thinking of just the function that you are working on, and the function starts to take on responsibility that it should have nothing to do with.

2. Suppose you test the function and find that it does not work. So, you need to fix it. But during the process of fixing it, you have nothing but your memory telling you what the function is supposed to do. It is difficult to keep that in your head along with the details of how the function is supposed to work and the process of fixing a function definition takes thefunction further away from its original intent.

3. Later, when you need to use that function, you have forgotten just what it does. Unwillingly to reverse engineer it, you make agues based on what you remember. You often forgot important details and your software does not work because of it. You are faced with laborious debugging to find out what is going on.

SCOPE OF THE PROJECT

Although the online industry is very competitive, the lifestyle changes created by modern living continue to fuel its steady growth. More and more people have less time, resources, and ability to go out for themselves. Trends are very important, and our application is well positioned for the current interest in books at moderate to low prices.

So, while we keep in mind the fact that there is no web application/software that is perfect, which would also mean there is no perfect online book store software, we put in an endless effort to improve our online book store software.

In future the application will have following improvement: -

- We will host the platform on an online server to make it accessible worldwide.
- Create the master and slave database structure to reduce the overload of the database queries.
- Implement the backup mechanism for taking backup of codebase and database on regular basic on different servers.
- We will add a payment gateway for easy online payment.
- This project will enable the admin to maintain a great database of all customers visited.
- Easy to maintain in future prospect.
- The customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number, etc.
- An e-mail notification will be sent to the customer as soon as the order is placed.

CONCLUSION

The Internet has become a major resource in modern business, thus electronic shopping has gained significance not only from the entrepreneur's but also from the customer's point of view. For the entrepreneur, electronic shopping generates new business opportunities and for the customer, it makes comparative shopping possible. As per a survey, most consumers of online stores are impulsive and usually make a decision to stay on a site within the first few seconds. "Website design is like a shop interior. If the shop looks poor or like hundreds of other shops the customer is most likely to skip to the other site". Hence we have designed the project to provide the user with easy navigation, retrieval of data and necessary feedback as much as possible. In this project, the user is provided with an e-commerce web site that can be used to buy books online. To implement this as a web application we used MEAN stack technology.

It should be convenient for the customer to view the contents and to be able to get services. This application described in this project provides a number of features that are designed to make the customer more comfortable. This project helps in understanding the creation of an interactive web page and the technologies used to implement it. The design of the project which includes Data Model and Process Model illustrates how the database is built with different tables, how the data is accessed and processed from the tables. The building of the project has given me a precise knowledge about how MEAN stack is used to develop a website, how it connects to the database to access the data and how the data and web pages are modified to provide the user with this application.

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Websites: -

www.wikipedia.org
https://www.geeksforgeeks.org/nodejs/
https://www.tutorialsteacher.com/nodejs
https://www.codecademy.com/learn/learn-node-js
https://www.guru99.com/mysql-tutorial.html
https://angular.io/start
https://www.javatpoint.com/nodejs-tutorial
https://nodejs.dev/learn

Books: -

Full-Stack JavaScript Development by Eric Bush

THANKYOU